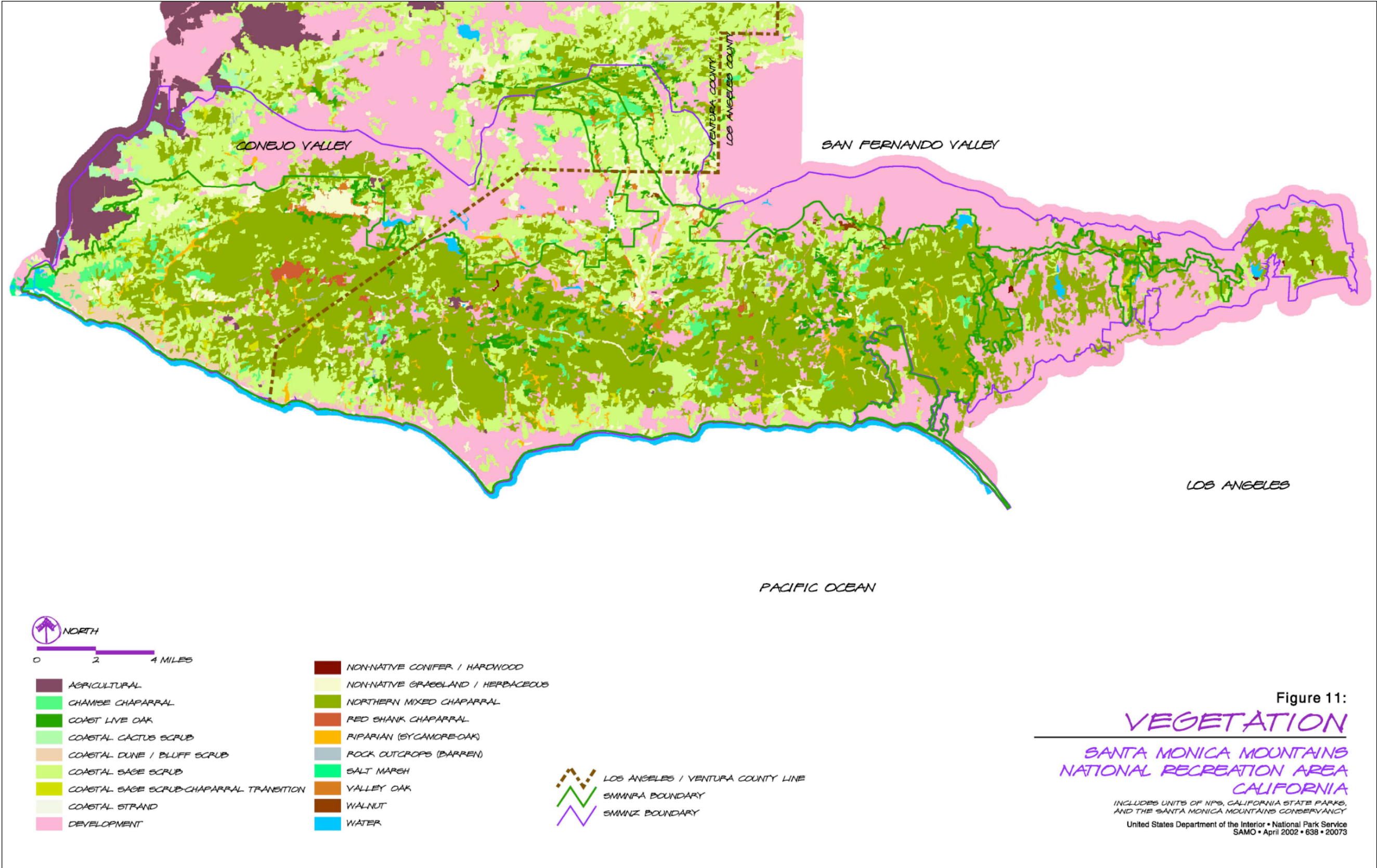


Figure 3-24 Vegetation Map of the Santa Monica Mountains National Recreation Area



The park is currently in the process of re-mapping the park vegetation at a resolution of 0.5 hectares with a classification system based on the nomenclature and methodology described in A Manual of California Vegetation (Sawyer and Keeler-Wolf, 1995; <http://davisherb.ucdavis.edu/cnpsActiveServer/index.html>), using updated CNPS releve (CNPS, 2002; <http://www.cnps.org/archives/forms/releve.pdf>), and rapid assessment protocols (CNPS, 2002; [http://www.cnps.org/vegetation/rapid\\_assessment\\_protocol.pdf](http://www.cnps.org/vegetation/rapid_assessment_protocol.pdf)), consistent with NBS/NPS national vegetation classification (USDI, 1994; <http://biology.usgs.gov/npsveg/classification/sect1.html>), and NBS/NPS field methods for vegetation mapping (USDI, 1994; <http://biology.usgs.gov/npsveg/fieldmethods/index.html>). The updated map will be completed in 2005 and will provide much more detailed information on the composition and geographic distribution of the Santa Monica Mountains' plant communities. It will also be used to provide a more detailed fuels map for better risk analysis.

#### Chaparral (54.4% of total area)

Chaparral is the dominant vegetation in the SMMNRA and occurs above 300m on steep mountain slopes. It is characterized by deep-rooted, drought and fire-adapted evergreen shrubs growing on coarse-textured soils with limited water-holding capacity. Leaves of many chaparral species are often small, leathery, thick, fuzzy and/or waxy. Drought adaptations vary among species. They range from species that are physiologically adapted to tolerate drought stress to deep rooted species that tap into available moisture during the dry season and functionally avoid drought stress. A number of chaparral species have specialized basal burls (lignotubers) that provide carbohydrate storage and have epicormic buds from which new stems arise following fire. Mature chaparral forms a dense, nearly impenetrable vegetative wall of stiff stems and leathery leaves with 1.5-4 meter-high plants. The litter layer varies in depth depending on the species composition, leaf size and dead stem retention. The understory typically has little herbaceous vegetation in mature, closed canopy stands. Waxes and resins from decomposing litter create a hydrophobic soil layer.

Chaparral plays an integral role in the stability of soils within southern California watersheds. Stems prevent dry ravel on steep slopes and deep roots reduce mass movement from shallow soil slips. After fires herbaceous cover and deep root systems beneath the soil surface help to reduce soil erosion and retain slope stability.

Depending on the species, chaparral plants may reproduce after fire either by seeds or stump-sprouting, or both. Within *Ceanothus* and *Arctostaphylos*, sprouting species are more important on mesic slopes and at higher elevations, while obligate seeders are more important on south-facing slopes and ridgetops (Keeley, 1986 and Nicholson, 1993 in Keeley, 2000). *Adenostoma*, *Ceanothus*, and *Arctostaphylos* predominate in the drier areas of the chaparral, but on more mesic sites other broad-leaved, evergreen, mostly resprouting shrubs become important. These mesic sites are generally more diverse and shrubs are generally taller.